

## 'THE THEILER INSTITUTE' 1924-1927

EMMA HAD WARNED Gertrud that all ships going and coming would be packed with visitors to the Empire Exhibition and she must return at once before it opened in April. Pa would provide the fare. The concept of a powerful British Commonwealth, inter-related in all fields while preserving local autonomy, was being sedulously promoted. Smuts still lived in its heady atmosphere. (Long before, he had arranged for a tour of South Africa in 1924 by Britain's best ambassador, the Prince of Wales.) He had returned to a sullen country, still soured by the ugly implications of the 1922 Revolution. It was foreign to his mood and he failed fully to grasp its dangers. Despite his rapturous reception late in 1923, there was strong feeling against his Government. Labour objected to the crude and violent methods used to suppress its militant demonstrations. Hertzog and his Nationalist followers regarded with suspicion his Empire orientation and his lack of enthusiasm for making 'the Afrikaner baas in his own land'. The farmers fastened on him all their ills of drought, pestilence, plague and lack of markets. The townsmen saw only economic stagnation and depression in his rule. Smuts himself was preoccupied with the realisation of grand concepts hatched abroad.

When the death of its S.A.P. member (elected by a slim majority of 50) caused a bye-election in the rural Transvaal constituency of Wakkerstroom on the Natal border, Smuts realised that a show of strength was necessary. He persuaded the Administrator of the Transvaal, A. G. Robertson, previously president of the Agricultural Union and popular among all sections of the community, to resign his office and stand for the South African Party against an unknown and unimpressive National Party candidate. (J. H. Hofmeyr, previously principal of the new Witwatersrand University, was appointed Administrator in his stead.) The bye-election campaign was reaching its zenith when Theiler returned. Parliament, opened on the 5th January 1924 by the new Governor-General the Earl of Athlone, was in session in Cape Town.

In the week prior to the result, Theiler brought himself abreast of developments during his 7-month absence. Du Toit had proved a worthy alter ego despite his wings being severely clipped by a drastically reduced budget. Du Toit was an admirable executive officer whose commodious mind could maintain surveillance of all of Onderstepoort's multifarious activities as well as the machinations of the Civil Service. He kept the vaccine factory at full tilt (a record number of 1,137,288 doses for Blue Tongue and 6,008,900 doses for Wire Worm in sheep were issued) and he maintained such research as he could. 1923 had been the worst year for Horse Sickness in human memory. Even donkeys had gone down. A large proportion of 'immunised' horses also died. Work went on to improve the method and the quality of treatment of other diseases.

Of prime importance was the elaborate series of nutrition experiments which Theiler himself had mounted at Armoedsvlakte. In retrospect, they appeared of unconscionable detail and thoroughness but they were typical of Theiler's exhaustive approach to a problem and on their results were founded the optimum methods of stock raising. The series began with D. T. Mitchell in 1920/21, were continued by Veglia in 1921/22, by P. J. J. Fourie in 1923 and were now conducted by J. B. Rodgers and others with Theo Meyer taking photographs and preparing charts. Du Toit had written a text and shortly after Theiler's return, there appeared in the *Journal of the Department of Agriculture* 'Phosphorus in the Livestock Industry' under Theiler's, his and H. H. Green's names. The veriest novice, aided by diagrams and striking photographs, could appreciate that a major advance had been made in cattle culture. A reprint went round the world and motivated widespread experiments on mineral deficiencies. To the eyes that had



long been fixed on Theiler, there were now added an international legion of nutritionists.

5 The time had also come to publish Theiler's 9th and 10th Reports which he had accumulated in 1923 and which the Government Printer succeeded in issuing in 1924. They demonstrated the vast range of his work and the accomplishments of his multi-disciplined approach. He himself contributed only a work on Gouwziekte in Sheep undertaken with du Toit and Mitchell while Pole Evans dealt separately with 'Gouwziekte Veld'. Du Toit reported his results with Sheep Scab and Sweating Sickness in Calves while W. H. Andrews dealt with 'Staggers' in Natal, caused, it was thought by a plant, and joined H. H. Green in assessing the toxicity of another plant. (Andrews, already failing in health, ended a 15-year association with Theiler both as Senior Research Officer and Professor of Physiology, soon after he returned and resigned from the Service in May 1924 to leave for England where he ultimately joined the Commonwealth Bureau of Animal Health at Weybridge.) 6 Gilles de Kock reported on Infectious Anaemia in South African Horses and C. P. Nesor on the Blood of Equines. J. B. Quinlan dealt with an aspect of bovine Contagious Abortion and R. W. M. Mettam, then attached to the Witwatersrand University, with 'Snotziekte', a sporadic cattle disease.

With his ready appreciation of meritorious work in other fields not necessarily scientific, Theiler included a classic historical review of 'Tsetse in the Transvaal and surrounding territories' by the entomologist Claude Fuller. True to his promise, he also published Gertrud's 'The Strongylids and other Nematodes in the Intestinal Tracts of South African Equines' based on his own collection of specimens made at Onderstepoort, and added 'South African Parasitic Nematodes' by the Institute's H. O. Monnig. Helminthology had made vast strides under Theiler's care and the combatting of internal parasites had substantially improved the agricultural economy. Veglia now lectured on the subject and published his 'Preliminary Notes' on two worms afflicting sheep. There followed reports on arsenical dips by the Institute's J. P. van Zyl. It was an impressive array of practicable work. To the world at large, it was also an exemplary display of meticulous method and exacting standard in scientific investigation. 7 The form of Theiler's 'Reports' had long been classic though some of their conclusions were later qualified.

Du Toit had also zealously fostered the Faculty of Veterinary Education and Theiler shortly officiated as Dean at the graduation of his first students, now numbering eight – J. I. Quinn, 8 M. Bergh, J. G. Williams, C. E. Maré, W. J. B. Green, J. H. R. Bisschop, G. Martinaglia and P. S. Snyman – under the aegis of the University of South Africa. Their presence had changed the very face of Onderstepoort with many new buildings including a hostel capable of accommodating 40 students. Its ceremonial opening had been delayed until Theiler's return and on 9 the 14th April 1924 – the day of the Wakkerstroom bye-election – he formally turned the key and joined the celebration. On that day South Africa changed course with fundamental effect.

A. G. Robertson, popular, bilingual, lifelong friend of the farmers, conscientious promoter of their interests and a Smuts man, polled 213 votes. His National Party opponent, A. Naude, unknown, inexperienced but a Hertzog man, triumphed with 1,429. The country reeled before, not a defeat, but a rout. Within hours, Smuts announced the dissolution of Parliament in the light of the result and declared a General Election in June. The Earl of Athlone, happily installed with his family in Government House in Cape Town and planning the visit of his nephew David, Prince of Wales (hurriedly advised of postponement), was compelled immediately to 10 move and take up residence in Pretoria. The Transvaal Administrator, J. H. Hofmeyr, and his mother, Mrs D. C. Hofmeyr urgently organised an official banquet to welcome him.

The Theilers first met the new Governor-General (whom Smuts had got to know when Athlone was attached to the staff of the Belgian King in 1917/18) and his vivacious gracious lady. Princess Alice, Countess of Athlone, grand-daughter of Queen Victoria, at the Provincial



Government Banquet on the 15th April 1924. Arnold had met his brother Prince Francis of Teck, at Daspoort in 1902. Athlone himself was an old Africa hand, having been stationed with his regiment, the 7th Hussars, in Natal in the nineties, participated in the Matabele Rebellion and served in the Boer War with mention in despatches and a D.S.O. Well acquainted with General and Mrs Smuts whom they soon visited in their ramshackle shanty at Irene, the new gubernatorial pair were widely informed on South Africa and keenly alert to its conditions and problems. It was not unknown to them that the indifference of their predecessors should be remedied and that the youngest Dominion in the Commonwealth should be encouraged to play its part. Athlone's sister, Queen Mary had accompanied her husband H. M. King George V when he opened the British Empire Exhibition at Wembley on the 23rd April 1924 (scheduled to last six months, it was formally closed in November but, such was the demand, immediately reopened and was not finally closed until October 1925). The climate of solidarity within the Commonwealth must be maintained, particularly South Africa. None could then suspect that its vice-regal proponents would fall in love with that unpredictable paradoxical land and its people.

13 While the country resounded to bitter electioneering (unknown to Smuts, Hertzog and Labour had a secret pact) and the people were reft on racial lines, public affairs were in a state of suspension. The Governor-General used it advantageously. On the 19th May, His Excellency and H.R.H. Princess Alice escorted by their A.D.C. Lord Bingham arrived at Onderstepoort to brief themselves on the work of which they had heard much. There was instant rapport with Theiler. He showed them everything. Keenly and intelligently interested, they watched horses being bled for serum, the manufacture of vaccines, the gory work ('oh horror!' Her Excellency later recalled) done in the Postmortem Hall, the dosing of the Wire Worm remedy by an ingenious assembly of spoons of varying size, the breeding of cultures, the stables whose every numbered animal Theiler knew in every detail of its case, the small-animal farm, the countless aspects of the world's most advanced veterinary research institute. They found it fascinating. In the six years of their service in South Africa, they kept it always in view, sending their distinguished guests (converted to propagandists) as a matter of routine to visit the Institute. Princess Alice often came with them - 'There was always something interesting going on', she said 50 years later, and Gertrud testified to the integrity of their interest. When they failed to understand the complicated scientific procedures, they did not hesitate to ask and Theiler with his admirable lucidity, gave further explanations. For the first time, the family went willingly to Government House - to garden parties and dinners where Theiler beguiled his hostess with tales of the Rinderpest and Kruger's prescribing a quid of tobacco under the tongue of each susceptible ox. His Institute with its ideals of international coöperation prospered by vice-regal interest and his life was sweetened in disillusioning times.

Dreams had become reality. Bayers' Berg was still working on Nagana in Natal. At Onderstepoort itself, Dr A. A. Ayres, a distinguished Portuguese veterinarian, arrived from Lourenço Marques in April to study research into animal diseases and stayed for several months. In June, Cowdry duly arrived from the Rockefeller Institute accompanied by his wife, both horrified that Pretoria could provide no pasteurised milk for their small son. (Max arrived soon after for a short holiday and Gertrud duly returned from England.) There followed Dr H. Schwetz of the Belgian Congo Government, seconded for special duty with a Katanga committee to study the structure and operation of Onderstepoort as a guide to instituting a similar research station in the Congo. He stayed until March 1926. Lacking specific information himself, Theiler then invited Dr Max Kupfer of the Federal University of Zurich to study the oestrous cycle (mating processes) of domestic animals. (He was accommodated at the out-station Besterput in the Free State and provided with numbers of horses and donkeys whose amatory adventures



he studied at dead of night with valuable result.) Delegates of the Empire Parliamentary Association also visited Onderstepoort with resounding effect. By then, the British Labour Government had resigned and Baldwin's Conservatives returned to their grand plans of closer coöperation within the Empire.

22 In South Africa, the flag drooped. The result of the Parliamentary Election was announced on the 18th June 1924. The South African Party had been defeated and Smuts himself had lost his seat in Pretoria West by 385 votes to the politically insignificant Labour candidate George Hey (he was almost immediately returned unopposed for Standerton and remained leader of his party, now in opposition). The Nationalist/Labour Pact had triumphed and the Governor-General sent for Hertzog. On the 23rd June, the new Cabinet was announced. The Minister of Agriculture was General J. C. G. Kemp, convicted traitor and notorious anti-Imperialist. Theiler shared in the widespread consternation. On the 1st July, the Governor-General swore in the new Ministry. 'It was', the vice-reine later recorded, 'an interesting but not entirely agreeable ceremony as he had to shake hands with and congratulate more than one rebel including General Kemp who was caught in German uniform and sent to prison by Botha for the part he played in the rebellion of 1914.'

23 The fanaticism and divisiveness of Kemp's patriotism – in terms of purging the country of all foreign influence and preserving it for the Afrikaner only – was common cause. His bitterness and abrasiveness repelled even Hertzog who concluded that his effect would be less damaging inside the Cabinet than out of it – but not with the Defence portfolio, a possibility used as a formidable repulsive device in the S.A.P. election campaign. Kemp was professionally a clerk and farmer with military training. It could hardly be contemplated that he would be a competent administrator of a vital State Department. Theiler regarded his appointment with distaste. 24 Eager, energetic, impetuous, very conscious of having power to wield, the man was uncongenial in every way. Without delay, he attacked the hallowed structure consigned to his care.

25 It was not a time of cool judgment. Racial passions ran high and everything Kemp did tended to be interpreted in terms of favouritism or gross ignorance of the issues involved. If he took 'the new broom sweeping clean' to extremes, his cause was often just though his execution lamentable. Even among his own people, there were jokes about his bias. A deputation of boere protesting against the appointment to the Agriculture Department of a man with an English name, claimed that he was not even bilingual. 'Bilingual?' exclaimed Kemp, 'Of course he's bilingual! He can't speak a word of English!' What he did to the Department was no joking matter to the old hands, including Theiler; but in principle, dictated by the appalling state of the country, some of his actions were defensible in the face of hot criticism in the House.

26 The country could no longer afford the elaborately-structured Agricultural Department initiated by F. B. Smith when its very life depended on the work of experts in distinct 'Divisions'. Bent on economising, Kemp justifiably abolished the Sheep Division headed by the popular war veteran Brigadier Barney Esselen, retrenching him and his senior staff. Howls rose from his supporters and Smuts fulminated against 'the breaking-down of the Department'. Kemp 27 gave notice in the House that he intended amalgamating the Veterinary Division and the Division of Veterinary Education and Research. He defended himself ably. The Public Service Commission had twice recommended such elimination of over-lapping functions and he had begun with the Sheep Division. For the time being, the status quo would remain. He defended himself less ably against bitter Opposition attack against the sacking of loyalists and the employment of erstwhile rebels. Kemp, like his colleagues, was besieged by Party supporters demanding Government employment.

The trend of event was profoundly disturbing to Theiler. While expected to continue the wide range of his work, his Vote was cut and cut again while Kemp moved forward to interfere with



28 his organisation. All the Government veterinarians were summoned to a 2-day meeting in the  
Union Building on the 24th September 1924 and visited Onderstepoort on the 25th. A week  
29 later, Kemp accompanied by his wife and family came to see for himself and to be photographed  
alongside Theiler, distaste patent in his expression, with the whole staff. Then the juggernaut  
began to move. Kemp convened a meeting in the terms of the Public Service Commission's  
recommendations, attended by all the Heads of Divisions (Botany: Pole Evans; Veterinary:  
Borthwick; Veterinary Education and Research: Theiler; Dairy: Challis; etc.), the heads of  
30 the five Schools of Agriculture, and departmental officials to consider economies and greater  
efficiency. 'Much divergence of opinion naturally arose', reported the wretched Secretary for  
Agriculture, P. J. du Toit; but Kemp was determined to reduce the number of Divisions from  
13 to 10. Theiler's and Borthwick's Divisions were to be amalgamated 'as soon as practicable'.  
Theiler had no cogent objection - his Institute did do veterinary work in prescribing and supply-  
ing specifics to stock-raisers without reference to the Veterinary Division and veterinary sur-  
geons did supply information for research purposes and other germane services. He had himself  
31 recommended amalgamation some years earlier; but his position was becoming increasingly  
uncongenial.

He continued his routine duties, frequently visiting Armoedsvlakte where, after the departure  
32 of P. J. J. Fourie, Henrici was now in charge. Some distance from the station stood the stone  
platform, with his anemometer suitably mounted, solidly built with a railing and fenced by the  
33 P.W.D. after much correspondence. Readings were taken every day and the Vryburg Farmers  
34 knew that their coöperation had been commemorated. Henrici had accommodated herself  
35 admirably to her new milieu and was doing valuable work, coming regularly to Onderstepoort  
to report to Theiler. Shortly after her arrival at Armoedsvlakte, a snake had fallen off a roof  
on to her as part of her bleeding. Now, when an assistant was bitten on the forearm by another  
of the prolific reptiles, she saved his life with sangfroid by the application of Fitzsimmons anti-  
36 venene. The mineral nutrition experiments were already producing highly interesting results  
which Theiler would in due course have to record and publish. Lamziekte had virtually dis-  
appeared and the bacterium causing it had been isolated and identified with the Botulinus  
group. Bitter distress continued to afflict the whole country, especially through drought in the  
Northern Cape, and political strife and tension bedevilled the lives of the people.

At a time of disenchantment and gloom, Theiler had compensations. Hans passed his final  
37 examinations and qualified M.R.C.V.S. The visit of the British Parliamentary Association in  
October with delegates from Great Britain, New Zealand, Australia and Canada accompanied  
by local members of Parliament and the Mayor of Pretoria had been particularly gratifying.  
38 Then, as proof of his serious interest, the Governor-General came again with his daughter  
Lady May Cambridge and A.D.C. Captain R. C. Hargreaves. Lord Milner was to be his guest  
39 a few weeks later but the ageing administrator was simply taken for drives and made no visit to  
Onderstepoort (he died five months later). The pleasures of dinners and receptions at Govern-  
ment House would soon end when the vice-regal party moved to Cape Town for the New Year  
session.

Theiler took the measure of his personal situation. All his children were now qualified to earn  
their living (Gertrud had been appointed teacher of Biology at the Jeppe High School for Girls  
in Johannesburg where Margaret was already securely installed - she remained for 28 years).  
He had discharged the obligations contracted with Smuts. The bogey of Lamziekte was laid and  
the development of stock-raising promoted, particularly in new tests on the efficacy of various  
minerals such as calcium. The Veterinary Faculty had been established and the first local stu-  
dents had graduated with many more enrolling to provide South Africa with a constant supply.  
Research was being hamstrung by lack of money but du Toit had shown himself capable of



40 continuing the work and contending with the very altered circumstances imposed by the new Government and its impetuous Minister of Agriculture. To a man of Theiler's stature and attainment, it was *infra dignitatum* to deal with such an upstart. He was anxious to continue research but not under the burden of crushing administrative work and constant interference from the Auditor-General, the Public Service Commission, Treasury and his Minister who made no secret of the fact that he considered him 'obsolete' and 'only fit for the scrapheap'. He was in any case beyond retiring age.

41 Toward the end of December 1924, he left for Cape Town for a month's local leave and to resolve his course for the future. During his absence, notification was received that the Société de Pathologie Exotique in Paris of which he had become a founding Associate Member in 1908, had elevated him to its maximum distinction of Honorary Membership in December 1924.

42 'This award', the *Pretoria News* noted (copied by other newspapers) 'which has been conferred on Sir David Bruce and a few other scientists, is for exceptional merit.' Theiler's image shone.

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43 On his return to Pretoria at the end of January 1925, Theiler resigned and Kemp in Cape Town sent for du Toit. It could be thought that there was some collusion in what transpired. Pretoria speculated that du Toit would be appointed Director of Veterinary Education and Research and that Kemp had accepted Theiler's resignation; but there was no confirmation and both went about their usual business. Theiler said farewell to Cowdry, departing for urgent domestic

44 reasons after spending only 8 of his 12 months in South Africa but convinced that the blood of Heartwater victims contained *Rickettsia* parasites. It was of no immediate practical value but Theiler began experiments to determine whether a vaccine might be prepared. There was also the excitement of the arrival on the 2nd February of Dr Max Kupfer and his assistant Welti. Kupfer was elated at his promotion at the early age of 37, conveyed as he embarked at Southampton, to a chair among the august academics of Zurich. His keenness was tonic.

46 On the 17th February 1925, Kemp let it be known that he had asked Theiler to reconsider his resignation and there was some overt rejoicing. Theiler maintained a dignified silence which was variously construed. In his own mind, his long-range plans should now be realised. He had accomplished everything he had promised in the teeth of harassment from Government agencies, particularly Treasury, and from politicians, He was, according to Orenstein who had watched for a decade, an amateur in administrative matters and tended to react emotionally to red-tape frustrations instead of accommodating himself to them or devising means to circumvent them. He was intolerant of Civil Service procedures and temperamentally incapable of descending to the level of ingenuity or otherwise dealing with them. A typical case was the abolition of free quarters for certain veterinary research workers. Theiler was not prepared to accept it and

47 proposed 'a very strong protest demanding the right of Onderstepoort to be put outside general arrangements by reason of the nature of its work, by its traditions, by its standing in the scientific world and its outstanding success . . . It has the right to have its own way - the psychology of scientific workers should not have to give way to the general machine-like way of working of the Treasury, the Auditor-General and the Agricultural Department.' He fought blindly for the welfare of his staff and students, his own combative 'psychology' preventing recognition of the need to economise, the danger of precedent and other problems of Union administration.

48 In the wily King he was well served in bureaucratic matters; but he planned that the whole burden of administration should be borne by du Toit while he devoted himself to specific fields of research which his work had revealed and the writing of much-needed text books. His achievements stood around him. Hardly a day passed without distinguished personalities from every



49 part of the world visiting the famous Onderstepoort. Its staff of 29 research officers, distracted by extra-mural public relations work (contrived with some reason by Kemp), was inadequate to demand but – of special joy to Theiler – was now fortified by three of his first graduates – J. Quinn, W. J. B. Green and C. Maré who, upon transference to the field staff, was replaced by J. H. R. Bisschop. It might be forgiven him if he had undue sense of his own importance. It were a feasible attitude in any but the public service which – the thought now seldom entered his mind – had given him all his opportunities.

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51 Nonetheless he informed Kemp on the 18th March 1925 that he was prepared to stay another year until du Toit was ready to take over. Circumspectly Kemp spoke to the Press in eulogistic terms of the signal services of Sir Arnold Theiler. He could afford to wait, indeed had been compelled to stay his hand. Du Toit, the ideal Afrikaner successor, was neither as qualified nor as competent as the master to conduct a world-famous institution of incalculable domestic and international value nor the amalgamation of the two Divisions which was not yet 'practicable'.

52 While Theiler had no avuncular interest in du Toit, 21 years his junior, but preponderantly a great respect for the clarity and quickness of his perception (he was able instantly to grasp and comment on any scientific subject raised between them), their relationship was one of close friendship without emotional undertones. There were no secrets between them in their work and in the human relationships which it involved. Du Toit was totally Theiler's man; but if he were in the near future to direct the combined Divisions of Veterinary Education, Research and Services, he would have, like Theiler with his endless private study and overseas sabbaticals, to travel abroad to bring himself abreast with modern developments and to make good the gaps in his training. There was no prospect of such an arrangement. The Minister was implacable. With only one year's further service, Theiler would take all the local leave due to him and then retire at the age of 59.

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53 In the event, it proved a stimulating time. When the 1925 term opened, the new veterinary students included the first woman, Joan Morice who staunchly and solitarily stayed the course under Theiler's benevolent eye. Her presence among men in a susceptible field produced embarrassing incidents of earthy humour but in due course, she qualified with Theiler's support. He himself was honoured in April 1925 by the University of South Africa with the honoris causa award of the first doctorate in Veterinary Science. There were four other honorary awards (D. Litts.); but in his preliminary address, the Administrator (J. H. Hofmeyr) mentioned 'the high importance of the connection of this University with the Division of Veterinary Research'. Theiler was obviously the cynosure and Hans, on a four-month visit, was there to see it and to read a 'Men of the Moment' article in the local Press about his father. (Hans left in July for the U.S.A. to serve as an assistant under Theobald Smith at Princeton in the Division of Animal Pathology of the Rockefeller Institute of Medical Research. A year later, he went to Cornell at Ithaca on a year's Fellowship for further studies in Animal Pathology at the New York Veterinary College and was ultimately awarded an M.Sc. for his work at Cornell.)

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55 With du Toit shouldering an administrative burden increased by Kemp's innovative ideas – a 'Demonstration Train' publicising the Department's services took some of the ill-spared staff and later, Kemp himself dramatically entered the field as officer commanding the forces combatting a serious locust invasion, incurring vast and unauthorised expenditure – Theiler could devote himself to his students, his continued investigation of diseases and now, of foremost importance, the effects of various mineral deficiencies on stock. Henrici was withdrawn





*Theiler in the Twenties* – harrassed, beardless and with his hair en brosse, the Director of Veterinary Education and Research confronts a host of problems.



*'Saved to be Slaughtered'* drawn by the botanical artist Beryl Kaye for display at the meeting of the South African Association for the Advancement of Science in Pretoria in July 1926.





*The Old Man* watches at Onderstepoort (Pyramid Hill in the background) the tests for phosphorus craving in cattle.  
Left to right: Dr P. J. du Toit; Sir Arnold Theiler in his classic white apron; and Dr Henry Green.



*Dosing goes on* – the administration of bonemeal became widespread and experiments continued to determine its maximum efficiency and its effect on weight, productivity, milk production in cattle, sheep and other animals.



from Armoedsvlakte (where J. R. Scheuber took her place) and posted to Ermelo where similar experiments on sheep had long been conducted. Theiler, usually accompanied by Henry Green and/or C. Hinds (junior assistant to King) frequently visited both stations, noting remarkable improvements in productivity and condition by the administration of selected minerals. It was a new and highly rewarding phase of his work which attracted interest in a world already diverted  
58 by the study of 'vitamines'. Theiler found them negligible in the diet requirements of cattle.

A breeze now fluttered the Empire flag in South Africa. Athlone had approached the Prime Minister, General Hertzog, noted for his courtesy and culture, about the postponed tour of the Prince of Wales. Demurring only to consult his Cabinet, Hertzog formally invited the Heir Apparent to visit the Union. He landed in Cape Town on the 30th April 1925 and, hardly entered  
59 on his official ardours, was reduced to a wreck by Princess Alice whom he unwisely invited to join him in climbing Table Mountain. On a gruelling tour, the young Prince, fresh in face and manner dutifully and efficiently justified his reputation as the mother country's best ambassador. Hate and bitterness notwithstanding, the Empire and its agencies, even the British and their institutions, were still persona grata in the Union. Much was to be gained by maintaining the association (particularly in respect of the British Navy).

The Athlones moved to Pretoria to receive their nephew when he arrived there on the 19th June. They gave 'a brilliant State ball' at Government House. Breaking their custom, Sir Arnold and Lady Theiler attended (Emma had none of her daughters' disdain of dress as merely a body-covering and was modishly gowned in cinnamon marocain with gold lace godets. She was equally attentively garbed at the Royal Garden Party at Government House in November.)  
60 After covering an enormous area and hobnobbing with every kind of inhabitant, the Prince went his way, having enhanced the congeniality of the Empire connection. The Athlones remained to support it and Theiler, conditioned by his travels and overseas associates, was soon involved in active participation.

With du Toit increasingly in control, he was able constantly to visit his experimental stations  
61 and discharge his duties to his students who, fearfully in awe of 'the old man', were conscious of his genuine interest and kindly encouragement. In the mid-year vacation, he took some local leave with his family on a 'Round in 9 Days' railway tour with a stop at the Sabi  
62 Game Reserve (the train whistled once for lions to be seen on the right and twice for the left). Since his earliest years in the Transvaal when he had hunted and sent skulls, skins, snakes and insects to his scientific friends in Switzerland and had taught all his children how to skin and  
63 mount birds and small animals for museum display, Theiler had been interested in South African fauna. He had sat for many years on the committees of the Transvaal Museum and Pretoria Zoo whose director A. K. Haagner was also president of the Wild Life Protection Society of South Africa and Vice-President of Theiler's cherished Biological Society. Never sticking to his last because of the width of his interests, Theiler gladly coöperated with Haagner in his capacity of Director of the National Zoological Garden of South Africa in promoting the conservation of indigenous fauna. He wrote to the aged botanist Professor Carl Schröter of Zurich who, a noted conservationist, served on the Commission Suisse pour la Protection de la Nature, and obtained both advice and papers. Together Theiler and Haagner submitted a memorandum to the Union Government urging various measures and the appointment of a National Committee to investigate the whole subject of National Parks.

The director of the Sabi Game Reserve, Colonel J. Stevenson Hamilton, was struggling to induce the Government to declare his domain a National Park. He met Theiler's train when it came to an overnight stop at Skukuza, his 'capital', and they had particularly congenial discussion. Stevenson Hamilton wanted his Game Reserve greatly extended even unto the borders of Mocambique by the Government's purchase of privately-owned land but was strenuously



64 opposed, principally by the owners and by veterinarians who regarded wild animals as carriers of diseases of domestic stock. Sir Arnold Theiler, he later wrote, 'confided to me that his anxiety lest a great permanent wild life sanctuary right up against the border of a foreign country with which, in the nature of things, we could have no control over diseases, would prove a permanent danger to farming operations in the whole Transvaal by providing a corridor through which various plagues could be introduced. Stock movements may be controlled but not those of wild creatures.' Massacres of game were contemplated and even undertaken later; but Stevenson Hamilton persevered with good reason and finally attained the Kruger National Park.

65 Refreshed, Theiler returned to his duties and a report of unusual utterances by his Minister in the House. In Committee on Estimates, his predecessor Sir Thomas Smartt had affected nervousness in addressing questions to the 'overpowering' and 'terrorising' Kemp. He wanted to query the cost of a workshop, smithy and other buildings at Onderstepoort and elsewhere. Kemp replied with typical violence - 'I just want to tell the honourable member for Cape Town (Central)', he shouted, 'that Onderstepoort is of great value to South Africa and I think we dare not be so negligent as to fail to continue the work. The institution must be properly equipped and the various cattle diseases must be duly enquired into. Does the honourable member know that this is the best institution in the world? He shakes his head but people who have come from overseas acknowledge it. Now he attacks us about the building of houses for the staff to the extent of £1,750. If officials are appointed there, we surely cannot dump them in the veld!' Impetuous, choleric, posing as a kampvegter as he then dashed off to fight the locusts in the field, Kemp had initiated some excellent measures including the Division of Agricultural Economics and Markets. He made good use of its statistics. Agriculture, he trumpeted at farmers' meetings, accounted for £81½ millions in the Union's economy and mining only £49 and one third millions. At the last census in 1921, it was calculated that of 1,000 male whites, 374 were farmers and only 46 miners. (The platteland or rural vote was of prime importance.)

66 Further disastrous drought-stricken months from May 1922 to August 1923, together with 67 disease, had imposed heavy stock losses - 535,787 head of large stock and 5,207,680 of small including sheep. Nonetheless production of wool stood second in value only to maize - £9,512,989 as against £11,237,774. Theiler could but did not claim great credit for the result. Vigilant eyes were on him and duly publicised his contribution in combatting disease in sheep and promoting their increased production. Theiler himself drove on with helminthological studies. Of this 68 time, P. J. J. Fourie later wrote - 'My personal association with the Ou Baas had its ups and downs but I shall never forget the inspired leadership he gave me when I approached him for a problem for a thesis for a Doctor's degree. I can still see him clearly in his laboratory working at his microscope when I put my request. He turned round and looked me straight in the face and without hesitation said "My boy, we in the practice know that when a sheep has worms, it develops an anaemia. Find out which worms cause the anaemia and how this anaemia is produced." No details discussed. To him, the directive was clear enough. All facilities were placed at my disposal - stable accommodation, as many sheep as I required and no limit to any equipment I needed for my work.'

69 Under Theiler's eye, research flourished in all fields at Onderstepoort and sometimes with novel facilities. J. I. Quinn, one of the first students who had qualified with honours, was assisted in his work on Sterility in Cows by a lady-artist who, in the absence of adequate colour photography, Theiler employed in 1925 to draw and paint postmortem specimens of cysts, tubercular conditions and other microscopic pathological items. Cythna Letty executed exquisite water-colours for Quinn. Her meticulously-drawn and coloured pathological work was also transferred to slides. A spirited woman, she was not above drawing Theiler's attention to certain features (or 'knobs' as she called them) which he might not and indeed had not noticed



on a microscopic specimen. She remained at Onderstepoort until 1927 when she was transferred to the Botany Division, later becoming South Africa's foremost botanical artist.

70 In the humming arena which they both controlled, time was running out for Theiler and du Toit. The old man had told his Minister that his year was about to expire and he was ready to go on pension. Kemp had not yet amalgamated the Veterinary Divisions nor solved other problems. He asked Theiler to stay for another year. It was far from Theiler's sentiments to agree to such a request but he found a way out and accepted 'to oblige my successor'. It was possible now for du Toit to go on an extensive sabbatical and gain the widely diverse knowledge necessary to control and develop Onderstepoort. The 26th February 1926 was fixed as the date on which he would sail. Theiler planned a last local leave in December 1925 to marshal his forces for lone direction of the great Institute and determined his departure by the arrival of an important visitor.

As a student at Glasgow University, Henry Green had formed a friendship with a beetling-browed volatile Scot, John Boyd Orr who shared his physiology classes. Their ways had parted but their interests remained common, particularly in regard to nutrition. Orr had pursued his to the point of becoming director of the Rowett Research Institute at Aberdeen which had attained worldwide reputation for its study of nutrition, especially in mineral deficiency affecting humans and animals. Green, occupied similarly in the domestic stock field, had helped to establish Onderstepoort's international renown in the same area. Orr, with the great Empire urge and its financing of research behind him, was able to come to South Africa 'for the useful exchange of information and ideas between Sir Arnold Theiler, myself and Harry Green'.

71 He arrived with his wife in December 1925 and stayed with the Greens while the discussions lasted. His heavy Scots accent hardly deterred Theiler who conducted him over his Institute. Orr was profoundly impressed and in his manner, vociferously expressed his views in all quarters. Theiler immediately left for the Cape on the 14th December with his family and Dr Henrici on 'a botanising excursion' Green took his exhilarating visitor to the torrid Armoedsvlakte where Orr dizzied Butler with details of mineral deficiencies and their consequences throughout the world - lack of lime in the Falkland Islands and parts of Scotland, iron in parts of New Zealand, iodine in parts of Wisconsin, and so on. He was, he said, on his way to Kenya via Rhodesia to examine the interesting unstaged experiment contrasting the maize-eating Kikuyu and the meat-eating blood-drinking Masai ingesting few carbo-hydrates, each with different diseases. Orr visited Smuts at Irene, maintaining a relationship of mutual interest, and lunched with 'a rather sticky' Governor-General. Athlone was out of his depth with mineral deficiencies but brightened over horticulture. Already an apostle of Empire collaboration, Orr prospered its cause on his return to England in discussion with Walter Elliot, then Under-Secretary for Scotland and a leading supporter of research.

73 At a time instinct with international economic doom, the Empire was showing remarkable vitality and drive, particularly in the Dominions and Colonial Office in London directed by L. S. Amery. Onderstepoort was in the minds of purposeful men in all quarters. Returning on the 10th January 1926 well primed from his holiday. Theiler shortly received another significant visitor in this context - Dr A. E. V. Richardson, professor of Agriculture at the University of Adelaide and Director of the Waite Agricultural Research Institute, who had been appointed to a Royal Commission to investigate agricultural research in South Africa, Europe, the U.S.A and Japan. Richardson professed himself immensely impressed by Onderstepoort in experiment and practice - 'the chief of the laboratory, Sir Arnold Theiler, explains in his person the success of the institution. In addition to his high technical ability, he is a wonderful organiser and seems able to keep track of all the experiments under his charge.' Then he was taken to Armoedsvlakte 76 where the new editor of the *Northern News* (Butler had resigned to accept appointment in Cape



Town) reported his special interest in bonemeal feeding as large areas of Australia were similarly phosphate-deficient. He expected that the method would be applicable in Australia and that stock owners would be keenly interested. 'He expressed himself in enthusiastic terms on the scientific vision and organising ability of Sir Arnold Theiler and the manner in which the work of the staff he had gathered around him bears upon every aspect of the livestock industry.' Richardson kept it all in mind for future reference. Great developments were en tapis. Theiler developed a perceptible swagger.

At the end of February, du Toit departed for England and for specialised studies at the Pathological Institute of the University of Basle under Professor Rössle and the Parasitological Institute of the University of Paris. Theiler charged him with a myriad of personal duties and began the weekly ritual of exchanging lengthy letters, now dictated to King.

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'So far as the Colonial Empire was concerned, I inherited from Lord Milner the conviction that the twin keys to development were improved communication and research', wrote L. S. Amery, Secretary of State for the Dominions and Colonies when he resumed the reins after the return of the Conservative Government. With the aid of experienced and talented men - W. Ormsby Gore (later Lord Harlech), Walter Elliot, Lord Lovat and others - he wrought mightily in both fields to achieve politico-economic unity and development within the Commonwealth. In addition to establishing Research Committees for medical, agricultural and general purposes which soon became effective, Amery drove toward a practical coöperative agency, the Empire Marketing Board founded in May 1926 to which he appointed Stephen Tallents as secretary. Its vitality and imaginative achievements were phenomenal, particularly in public relations, then a nascent technique. 'For those of us who played any part in all the outpouring of creative original work which characterised the Empire Marketing Board', Amery wrote, 'it was "Heaven to be alive" during those years.' Less spectacular was the work of the main Research Committee whose report was presented to the Imperial Conference held in London in November 1926. A. J. Balfour had written into its introduction the memorable phrase - 'Let us cultivate easy intercourse and full coöperation will follow.' Du Toit, summoned from Paris by Hertzog, was present and attended a meeting of the Committee in a climate of dynamic effort.

Immediately on his arrival in England, du Toit had sensed the temper of the times. Following Theiler's directions, he had called on Sir Stewart Stockman in London and found him broken in health (he died two months later), proceeding thence to his Weybridge Laboratory operated by the Board of Agriculture and Fisheries of which he was head. Du Toit continued his rounds to the London School of Tropical Medicine, the Wellcome Institute and other bodies, all sending messages to Theiler. For the whole of his overseas sabbatical, he trod in the steps of his master and reaped the benefit of reputation and relationships already made. When he reached Switzerland to study at Basle, Theiler was making new ones.

Incongruously but in the spirit of the great Empire urge, a large party of British farmers toured the Union. The English market was highly desirable and every courtesy and facility was accorded them. Theiler went to Johannesburg to attend a welcoming dinner at the Rand Show. Onderstepoort had been readied against their visit, each Section mounting a special exhibition for their information. Theiler was proud of his staff's performance. The farmers said it was the outstanding feature of their tour. They impressed it forcibly on Kemp and carried their views home. Kemp instructed his private secretary to thank Theiler and later, at a meeting of Divisional Chiefs (now a routine), spoke 'very flatteringly' of the whole affair. At the same time, he made it clear that veterinary students who were not bilingual could not expect Government appoint-



ment when they qualified. Theiler ventured the view that it was his and the Government's fault that Afrikaans-speaking students from the rural population had not been attracted to enrol. Tuition was in both languages.

83 The old man was riding high. He was, he wrote du Toit, 'in excellent health and it is a long while since I have been so fit. My friends embarrass me by making remarks on my robust appearance and all tell me I am getting younger every day . . . I am thoroughly enjoying the work and could go on for another ten years.' He was now completely king of his castle. He had presented his latest batch of students for graduation, worked on the publication of his next Reports, opened new avenues of research, and appeared extensively at garden parties and receptions.

84 Taking their cue, the Pretoria Committee organising the forthcoming conference of the South African Association for the Advancement of Science contributed two long articles to the *Pretoria News* extolling the economic value of Onderstepoort and Sir Arnold. If the main products of its 'vaccine factory' had not been issued free, it would have shown a handsome dividend; but, they said, 'the indirect benefit reflected in the prosperity of the country is vastly greater than any direct revenue could ever be . . . Vaccines have rendered sheep-raising possible in areas previously unfit for it, have therefore opened up new tracts of country and so indirectly increased the national wealth still further.' They went on to deal with research and assessed the effect of the Lamziekte and nutrition work - 'an increased annual profit of four million sterling would be a very conservative estimate'. In empurpled prose covering Kruger to Kemp, they pronounced that 'in Arnold Theiler, they had a man of wide scientific vision and restless driving force who could be counted upon to express his science in terms of economics'. Significantly they observed that 'there are scientists all over the world who know the name Onderstepoort much better than they know the name Pretoria'. When the Conference met in July (Theiler delivered two papers in association with P. J. du Toit and E. M. Robinson), his colleagues were less kind. A botany artist Beryl Kaye produced caricatures of the leading scientists including Theiler, Green and Pole Evans and the image of the great man was projected in unflattering pose on the Conference screen and published in the *Rand Daily Mail*.

85 Even his family were a source of joy. Hans was safely at Princeton. Margaret had excelled at her games and, representing South Africa at hockey against a visiting English team in 1925, would continue a Springbok on the first such overseas tour in 1927. The highly-qualified Gertrud (no mean sportswoman herself) was looking for fresh fields to conquer. At the end of 1926, she left the Jeppe Girls High School to take charge of the Zoology, Physiology and Biology Departments of which she was sole lecturer, at the Huguenot University College at Wellington, Cape. An institution for the higher education of men and women, the College had established a good reputation under the University of South Africa. Gertrud was to develop and enhance its scientific aspect. And Max? Theiler glowed at the thought. Idly he wrote du Toit - 'It may interest you to hear that my son Max is going on an expedition to Central Africa. The Medical School of the University of Boston is sending it across Africa and it is expected to take about a year. The party intends landing at Mombasa, going across the Lakes and Katanga down to Boma and up to Liberia. Max is very enthusiastic about it and I am very pleased indeed that such a wonderful opportunity has come his way at such a young age.' In fact, the expedition led by Dr Strong proceeded in reverse. Max, aged 27, was assigned 'protozoological studies of blood' and human trypanosomiasis including Yellow Fever on which he had been working with Sellards at Harvard. Noguchi had considered a bacterium its cause but they believed it a virus.

88 Though cases were not available, Max enjoyed a rich experience of very varied nature on the expedition and found his future.

The Empire ferment continued active under unusually unpropitious circumstances. In May



1926, the Great Strike crippled England, interrupting communication with South Africa where Hertzog had chosen to introduce his inflammatory 'Flag Bill'. Incensed by the proposed elimination of the familiar Union Jack with its implied severance from what many people still called 'the home country', zealots protested violently and some left the country for Rhodesia and other 'loyal' lands. Hertzog had disturbed a hornets' nest which poisoned the Union for many unhappy months while a Commission sat to resolve the flag issue and Athlone temporised behind the scenes. Commonwealth coöperation steadily continued with its ripples lapping Theiler's door.

89 Walker came down from Nairobi on one of his 'refresher' visits to Onderstepoort and divulged a grandiose plan for a combined East African Veterinary Research Institute 'practically hardly second to our own', Theiler noted, envious of the bounteous money that would be devoted to it. There was even an enquiry from Egypt as to whether their veterinary officers might be trained at Onderstepoort. Momentarily too, the shade of Soga loomed. The Bunga or Transkei Native Council recommended that two native veterinarians be trained for work in their Reserve. Theiler was asked for his opinion but, recognising a matter of policy, referred it back to his Minister. Privately he thought it 'interesting in the present trend of ideas and South Africa will have to face the position sooner or later since by law all races are equal and I do not see how the native can be rightfully prevented from qualifying . . . It is a problem for our politicians to solve.' His Minister had already referred him to the Imperial Economic Conference in November and Theiler had composed a memorandum on Inter-Dominion work, exchange of literature and pooling of resources for the study of diseases of common danger. It was discussed 91 by the Heads of Divisions in July. Despite the odium he had created, Hertzog had every intention of joining his Empire colleagues in London.

Du Toit was filling every moment of his sabbatical. Arriving in Zurich, he and Kupfer (for whom Verney had invoked Theiler's aid in despatching a Basuto pony to Zurich) sent a joint cable of good wishes to the old man and Lady Theiler. (Kupfer had written for publication by the *Schweizerischer Landwirtschaftlichen Monatsheften* a splendid and lengthy account, lavishly illustrated by Theo Meyer's photographs, of 'The Theiler Research and Training Institute for Veterinarians and Biology in South Africa'.) Then du Toit began his pathological studies under Professor Rössle at Basle where he shortly received a cable from John Boyd Orr 92 (a special protégé of Amery's Research Committee and particularly active in scientific circles) stating that the British Association for the Advancement of Science had fixed a date in August for the presentation at its Meeting at Oxford of the Theiler/Green/du Toit paper on 'Phosphorus in the Livestock Industry'. It was a high honour for South Africa. Du Toit himself would read it but momentarily he trod further in the footsteps of the old man.

93 He addressed the Basler Naturforschender Gesellschaft on 'Veterinary Problems in South Africa' illustrated by 65 slides ending with one of Theiler himself which was received with great applause. Nostalgically and professionally, he visited Munich, Leipsig and Berlin (missing Knuth who was away on leave) and unsurprisingly, began to fail in health. Returning to England on two weeks sick leave, he began another round of official visits - Sir John Russell's agricultural experimental institute at Rothamstead, F. B. Smith at Cambridge where he also inspected Buxton's Laboratory, the Bio-Chemical Institute of Sir Frederick Hopkins of 'vitamine' fame - before going to Paris at the end of July to attend an Empire League Conference at which he represented the Transvaal University College.

94 Providently Theiler was preparing for his final departure. The Nationalist Government had appointed a Select Committee to examine State pensions. Its recommendations resulted in the Transvaal Republican Officials Act No. 49 of 1926 by which inter alia the length of service of Kruger's men was added to their service under Union (with some notable results - Leyds,



living in Holland, received a sum of £10,000 and his pension was increased from £700 to £1,300 per annum; his assistant C. van Boeschoten's was similarly increased plus £3,000; and P. W. Grobler, Kruger's protégé, received £2,000). Arnold's pensionable period now included his republican service from the 10th May 1896 to the 31st August 1900 when, after the British Occupation, the Government ceased to function. He had long discussion with Emma on the financing of their retired life and the need to safeguard her future if he predeceased her. They decided he would commute his outstanding leave pay and part of his pension. They had in mind to buy a house in Switzerland.

95 Before he could discuss his request, the Secretary for Agriculture, P. J. du Toit, suddenly died at the age of 54 and was given 'an impressive funeral'. He was succeeded, after much speculation, by his assistant and early Cape colleague, Colonel G. N. Williams with whom  
96 Theiler pursued what emerged as a complicated request. In the end, he was allocated £3,614 in commutation of a third of his pension which was then diminished from £1,166 a year to £764, both payable by the High Commissioner in London. Hope still lingered in his mind that he would not be 'thrown on the scrapheap'. Onderstepoort was now entering into its apotheosis and it seemed inconceivable that he should not return there after his leave. He had work to do – perhaps  
97 not in research which might interfere with current operations but certainly in writing his 'Handbook on South African Stock Diseases', and otherwise recording a lifetime experience and knowledge. He would need his Institute's records to accomplish it.

Du Toit who knew all his plans and intentions, had left France for Oxford to attend the meeting of the British Association for the Advancement of Science. Amery's adjutants – Ormsby-Gore, Under-Secretary of State for the Dominions, and Walter Elliot for Scotland – well aware  
98 of the importance of Onderstepoort to their grand schemes and primed by John Boyd Orr, accosted him and urgently besought him to serve their purposes by postponing his return to South Africa. They wanted him to make a short tour of Nigeria to report on its stock-raising. Du Toit was taken aback but forthwith advised Theiler.

The B.A.A.S. meeting was 'perfectly organised', according to du Toit who was intermittently harangued by the Empire Marketing Board's proponents on the significance of their Board and its intention to coördinate Veterinary Research. They attended the session on the 9th August together with Orr, T. B. Wood of Cambridge, A. E. V. Richardson of Australia, Golding of Reading and other Imperial and Colonial scientists who constituted a large audience when du Toit read the paper now called 'The Mineral Requirements of Cattle'. It was received with great acclaim, no discussion ensued and delegates demanded copies. Noting the considerable stir  
99 caused by South Africa's contribution, the *Pretoria News* scoffed at 'the tardiness of British scientists in recognising this work' and mentioned par contre that a French scientist from Algiers was coming to Onderstepoort to study the subject. Theiler had then completed his 11th and 12th Reports. The second volume consisted entirely of 'Lamziekte (Parabotulism) in Cattle in South Africa' under his name 'in collaboration with P. R. Viljoen, H. H. Green, P. J. du Toit, H. Meier and E. M. Robinson'. He signed it on the 14th September 1926 and it was published in January 1927 – a masterpiece of detailed experimentation conducted by many  
100 hands and minds under his direction. Robinson long continued work on the various types of botulinus and ultimately isolated those causing Lamziekte from which a successful vaccine was prepared.

Du Toit, returning to Europe on holiday, visited Bruges, Brussels, Dresden and Vienna before reaching Switzerland where he spent a day with Alfred Theiler, finding him very similar to Arnold. He then went to Dusseldorf for a Veterinary Congress attended by many of Theiler's  
101 confrères – Ostertag, Roller, Zwick, Knuth and others – who charged him with sending greetings, and delivered an address on Onderstepoort and its director. At the same time, Amery



wrote formally to the Earl of Athlone requesting his intercession in obtaining du Toit's services for a visit to Nigeria.

102 If Theiler's heart were rejoiced by these events (including the arrival at the Cape of his old  
friend Professor Carl Schröter on a long tour which would bring him to Pretoria), his daily por-  
103 tion consisted mostly of exacerbation. At this bitter time with the Flag Commission sitting and  
Athlone exerting himself to find a via media, Kemp was laying about him in the most authori-  
tarian manner. Without reference to Theiler he appointed P. R. Viljoen and Major A. Goodall  
(of Borthwick's staff) as a commission to investigate an outbreak of East Coast Fever in the  
northern Transvaal. At the monthly meeting of the Divisional Heads, he arbitrarily announced  
104 the amalgamation of the Veterinary Divisions to take effect on the 1st April 1927. ('There are  
times', du Toit wrote Theiler, 'when I think we made a big mistake in proposing the amalga-  
mation scheme.') When Kemp received from Athlone toward the end of October, Amery's  
request that du Toit be seconded for a three week tour of Nigeria before returning to South  
Africa, he replied, without consulting Theiler, that it was impossible owing to Theiler's depart-  
ure at that time. If du Toit went to Nigeria, Theiler would have left before he could hand over  
Onderstepoort to his successor. It was the kind of impetuous irrational decision that Kemp  
customarily made with a logic based on superficial premises. Had he consulted Theiler or asked  
for recommendations, he might have gained some insight into the Commonwealth coöperation  
105 in which his superiors were anxious to participate. In September when Amery had written his  
letter, Theiler had received from the Empire Marketing Board the visionary plans of its Research  
Committee to coördinate work and research. Already he was part of the synthesising scene.

Du Toit, anxious to know what Theiler thought of the Nigeria proposal, was now in Paris  
106 concluding his work with parasitological studies at Brumpt's Institute and calling on Mesnil  
at the Pasteur Institute. Theiler was entertaining the venerable Dutch botanist, Dr J. P. Lotsij  
107 and his daughter whom he took to Irene to meet Smuts and would shortly go on the same errand  
with Professor Carl Schröter who had now reached Johannesburg and would soon stay with him  
in Pretoria. The Imperial Conference had opened in London with South Africa represented  
by its Prime Minister General J. B. N. Hertzog and its Minister of Finance N. C. Havenga and  
staff. The climate was warmly conducive and unscheduled discussions took place. Du Toit  
was peremptorily summoned from Paris to attend formal meetings of the Research Committee  
of the Dominions and Colonial Office (he agreed with Theiler that elimination of 'overlapping'  
108 in research was not necessarily desirable - 'let them all try', Theiler had said). During these  
proceedings, he met Havenga and discussed his activities in the context of the Conference,  
Havenga raised them with Hertzog and together they over-ruled Kemp's decision and authoris-  
ed du Toit to accept Amery's invitation to make a survey of Nigeria's stock-raising industry.

Kemp in the meantime had delivered his coup de grace. On the 9th November 1926, the  
Secretary for Agriculture, G. N. Williams, wrote Theiler - 'I am directed by the Minister of  
Agriculture to advise you formally of the fact that on the attainment of your 60th birthday on  
the 26th March 1927, you will be retired from the Public Service on the grounds of superan-  
109 nation, the age mentioned above being the statutory retiring age in your case.' He added -  
'I am to say that the Minister desires particularly to place on record his high appreciation of the  
services which you have rendered South Africa during your tenure of office in the Public Service  
and I trust that you will permit me to add to this, an expression of my own and the Depart-  
110 ment's appreciation also.' Theiler's bitterness burst its bounds. Kemp had kept him, he wrote  
du Toit, merely on sufferance to fill a gap before placing him on the scrapheap conveniently  
on his 60th birthday. 'The last two years have really been a unique experience and will perhaps  
furnish me with very interesting subject-matter when I come to write up my memoirs.'

The 'crucifixion' followed. At the monthly meeting of the Divisional Heads from which



111 Theiler tried to absent himself but (with Borthwick, also retired) was specially summoned by the Minister, Kemp delivered a panegyric on Theiler's services from Kruger's regime onwards. He referred with fullsome praise to his saving the country millions of pounds, to the fact that his name would live on for 50 or 60 years and that the country was grateful. 'He regretted very much', Theiler recalled, 'that he had to sack me but that reaching the age of 60 meant the inevitable . . . This was the funeral which I had to attend as a living corpse. I could have done without it all and I still wish that the General had seen his way to have avoided crucifying us . . . All the way through, I have the feeling that destiny should have willed it that I died at Onderstepoort. I still cannot help having that feeling after the crucifixion.'

112 There stuck in his mind Kemp's statement that although he had the power to retain service after 60 years of age, he felt that the older men should make room for the younger. It was typical of Kemp's logic. The alternative of emeritus appointment in a consultative or other capacity would not occur to him (though Theiler had hopefully suggested it to du Toit before he left on his sabbatical). He may have wanted to save an additional salary. Rigorous economy was the order of the day (the stylish *Journal of the Department of Agriculture* which had carried Theiler's reports overseas, was now replaced by the cheaper *Farming in South Africa*). But he 113 may equally have contributed to the view then current that a dispirited civil service was subordinated to the whims of politicians. In Theiler's view, Kemp wanted to get rid of an Uitlander. 114

115 On the point of du Toit's going to Nigeria, Kemp had been forced by Havenga to retract and to inform the Governor-General that permission had now been given him to extend his leave accordingly. Theiler seemed indifferent 'It will probably be a long time before we see each other, perhaps never'. His bitterness was being temporarily mollified by unusual pleasures. 116 Always a favourite with the Athlones, he had enjoyed their garden party - 'thousands of people' and Emma specially noticed as 'wearing a handsome gown of black-embossed georgette with a chenille design - her smart hat was also black'. Then Schröter and his daughter and son-in-law 117 came to stay with much festivity among the local Swiss and a special 'Botanic Evening' given in his honour by the Biological Society (at which the Scott Medal was presented to Henry Green). Smuts, enjoying indulgence in his favourite hobby, spoke most appreciatively of the Swiss contribution to South Africa and 'some very nice things were said'.

Theiler spent two days showing Onderstepoort to Schröter and was compelled to account for his leaving it, concluding rather lamely that he would continue his scientific work elsewhere. 118 'This did not go down with old Schröter who is himself a very virile man at 71', he told du Toit, 'and who would not understand that youngsters of 60 should have to be put on the scrapheap.' The venerable Swiss botanist continued his exhaustive tour to Swaziland, the Victoria Falls and beyond while 'the old man' felt a sudden wave of nostalgia. Simultaneously Sir Robert and Lady Baden-Powell arrived to stay at Government House (veterans of the South African Constabulary foregathered to meet him) and Milner's Kindergarten re-appeared in Pretoria in the 119 persons of Lionel Curtis, Phillip Kerr and Lionel Hichens. Men had been men in those days and he had been among them. Now he was the prey of ninnies.

120 Like a caged animal, his mind hurled itself against the bars of his dismissal. The affront to his pride was intolerable, the hurt hardly less. If South Africa spurned him, there were other countries which knew his value. On the 7th January 1927, two months before his scheduled departure, he wrote to the Southern Rhodesian Minister of Agriculture, J. V. Downie, offering his services in active employment as against retirement. 'I am more anxious to utilise my ideas and experience in some capacity which would be congenial to me. With sufficient assistance, the problem of endemic East Coast Fever as well as the problem of the presence of Koch's bodies in diseases other than East Coast Fever, would be a very fascinating one and, given assistance and time, it should be possible to solve them in Rhodesia.' Cruelly there was no reply.



- 121 Du Toit had already sailed for Nigeria after lunching with Walter Elliot in the House of Commons. Max had reached the Congo and might be in London in May. Margaret was already there, playing hockey for South Africa. Gertrud would soon leave for Wellington, Cape. Emma made difficult decisions about family property in furniture, books and records which should be stored as possibly useful to the girls or to Arnold and herself when finally they settled somewhere.
- 122 Enervated by rage, grief and frustration, Theiler ordered his last affairs at Onderstepoort, including preparing his 13th and 14th Reports for printing and collecting pathological material
- 123 for his proposed study of Stijfziekte and Osteoporosis in horses and donkeys at the University of Basle where Professor Rössle would welcome him and accord facilities. He intended keeping au courant with his previous work through du Toit whom he continued to treat as an acolyte.
- 124 The University of the Witwatersrand offered him an honorary D.Sc. which he could not accept as he would already have left by the time of the ceremony. Advice reached him in January 1927
- 125 of his election as an Honorary Fellow of the Royal Society of Tropical Medicine and Hygiene
- 126 in London. He would not give in. 'It would be a waste of time if, on my retirement', he wrote du Toit, 'I should cease all my activities simply because I have been discouraged and disappointed at the end of 34 years work in South Africa.'
- 127 The emotional strain rose to crescendo. The popular *Farmers Weekly* (a commercial publication) took from the short valedictory in the Annual Report of the Secretary for Agriculture published in December 1926, the phrase 'the progress which Onderstepoort has made since its inception is indissolubly associated with the name of its founder and director, Sir Arnold Theiler' and suggested that it be changed to 'the Institute Theiler' as the country's tribute to
- 128 the man who built it. Du Toit had earlier had the same idea. *The Star* professed itself dissatisfied with the reason for Theiler's retirement and suggested emeritus appointment. Theiler's gall
- 129 rose and he gave a bitter question-and-answer interview to the *Farmers Weekly* which was
- 130 published after his departure. In a more measured moment, he wrote - 'The scientific world in Europe will have difficulty in understanding why Theiler should have been put entirely on
- 131 one side as a necessity of reorganisation'. Ironically at that moment, a representative compatriot of that world, Dr Arnold Heim of the Swiss Geological Survey, a passenger on the historic Mittelholzer seaplane *Switzerland* traversing Africa from north to south on a scientific expedition, was duly fêted by the local Swiss in Pretoria and continued his journey by land to Cape Town.
- 132 Theiler had used his remaining local leave to terminate his service on Saturday the 5th March 1927, three weeks before his 60th birthday so that he could reach Basle in time for the opening of the University courses he wished to attend. Each succeeding day was more harrowing than the last. The farewell ceremonies and presentations of 1918 could not be repeated. Times were in any case too bad. Fundamentally an emotional man, Theiler wrote to the secretary of the Governor-General, then in Cape Town for the session, on the 18th February notifying his final departure and asking that his gratitude and appreciation be expressed to His Excellency and Her Royal Highness Princess Alice for their continuous kindness and interest, and sending his best wishes. It had been a ray of light in one of the darkest periods of his life. Hargreaves replied
- 133 immediately - 'Their Excellencies ask me to convey to you their best wishes for your future welfare. His Excellency would like to know if you and Lady Theiler intend passing through Cape Town on your return to Europe as, should you be doing so, he would like to bid you farewell in person.' It seemed an impossible assignation. His train would reach Cape Town at 10.30 a.m. on the 7th March and his ship *S.S. Toledo* of the Deutsch Ost-Afrika Linie would sail at 4 p.m., Du Toit (and Margaret returning from England) would land from *Balmoral Castle* early on the same morning and he must have long talks with both. Lest he miss du Toit,
- 134 he wrote him a final letter on the 3rd March asking him to try to find a place for Hans at Onderstepoort - 'it would be easier now'.



135 Kemp fulsomely fulfilled his official duty in a long letter conveying the Government's gratitude for his services and treading heavily on tender points. 'I regret that the passage of time has rendered it necessary to bring your services as an official to a close. Your loss will be greatly felt but on the other hand, I realise that it is owing to your foresight and the advantage of training under you that I have a successor in your post in whom I can repose full confidence and who will become a worthy successor to his Chief . . . I hope that ere long on the completion of your studies in Switzerland, you will return to the Union which can ill afford to spare one of its most distinguished citizens . . .' He ended with warm expressions of goodwill and best wishes. Probably Williams, the Departmental Secretary, wrote it for him.

136 Sadness pervaded Onderstepoort, even among his students whom he had encouraged, cherished and protected. They clubbed together and arranged a small dinner party at which they presented him with the classic Burchell's 'Travels in the Interior of South Africa' of 1811-15 which they knew he wanted for tracing early mention of animal diseases. He could not conceal his bitterness from them - he had wanted to stay on as a guest-worker. He felt, he said, like an orange or a lemon which had been squeezed out. The research staff had given long thought to a suitable parting gift and presented to Lady Theiler a small green-stone triangular obelisk mounting in bas-relief a profile of Sir Arnold. The lay staff who had been with him from the earliest days paid 137 their tribute with a card inscribed 'to "the Founder of Onderstepoort" from a few of your "Daspoort Uitlanders" in sincere appreciation of all you have done for us and with deep regret at the enforced termination of our official relationship'. It was signed by H. W. R. King and his assistant C. F. Hinds, the veteran F. T. Mauchlé, Captain W. F. Averre in charge of animals, 138 and R. J. White. The Biological Society presented a picture by the local artist Pierneef. On the 139 4th March, all the staff and Theiler's Divisional colleagues met informally in the administrative building when affecting speeches were made and final leave taken. The old man and Emma were profoundly moved. The next afternoon, they left by train for Cape Town.

Theiler fulfilled all his assignments, seeing du Toit (who remained shortly at the Cape for 140 discussions with his Minister) and calling at Government House to take leave of his gracious patrons. Gertrud came in from Wellington to join Margaret in watching *S. S Toledo* being 141 warped from the quay, taking their parents away for an undetermined period. Symbolically, 142 loaded in its hold, the dismantled Mittelholzer seaplane *Switzerland* returned to its home country for re-assembly and further use. 'The Theiler Institute' was a vanished dream.